97-84058-30

New York, New Haven, and Hartford Railroad Co.

To the stockholders of the New York, New Haven...

[New Haven]

[1923]

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29 p.
[New Haven 1923]

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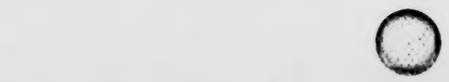

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The New York, New Haven and Hartford Railroad Company.

NEW HAVEN, CONN.,
November 20, 1923.

TO THE STOCKHOLDERS OF
THE NEW YORK, NEW HAVEN AND HARTFORD RAILROAD COMPANY:

In the circular of August 16, 1923, the Board of Directors stated that the assistance of independent experts had been obtained in making a thorough and detailed examination and further statement regarding certain points relating to the operation of your property contained in the report of the Joint New England Railroad Committee. That examination has been completed and the results are set forth in the following statement signed by Winthrop M. Daniels, William J. Cunningham, and a supplemental report signed by W. C. Kendall, dealing particularly with the embargo policy of the Company. Messrs. Daniels, Cunningham and Kendall are eminently qualified by long experience in positions of responsibility to deal with the subjects embodied in their statements. Mr. Daniels was a member of the Board of Public Utility Commissioners of New Jersey from 1911 to 1914. In 1914 he was appointed by President Wilson to the Interstate Commerce Commission. His membership upon the Commission lasted until the present year. In 1918-1919 he was Chairman. On July 1st of the present year he resigned to accept the chair of transportation at Yale University. Mr. Cunningham prior to Federal control was successively on the executive staffs of the Boston and Albany, the New Haven and the Boston and Maine. He has for several years been the James J. Hill professor of Transportation at Harvard University. During Federal control he was a member of the staff of the Director General of Railroads, first as manager of the operating statistics section and later as Assistant Director of Operation. Mr. Kendall is manager of the Railroad Relations Section of the Car Service Committee of the American Railway Association, stationed at Washington. He keeps in constant touch with the Interstate Commerce Commission, on the one hand, and the railroads, on the other, in matters particularly pertaining to the movement of cars, embargoes and car hire. He was formerly Superintendent of Transportation of the Boston and Maine, is familiar with the operation of the New England railroads, and was selected as the New England representative on the car service committee.

EDWARD MILLIGAN,
FRANCIS T. MAXWELL,
JOHN T. PRATT,
HOWARD ELLIOTT,
ARTHUR T. HADLEY,
JAMES L. RICHARDS,
J. HORACE HARDING,
FRANK W. MATTESON,
JOSEPH B. RUSSELL,
HARRIS WHITTEMORE,
WALTER B. LASHAR,
EDWARD G. BUCKLAND,
BENJAMIN CAMPBELL,
EDWARD J. PEARSON,
ROBERT G. HUTCHINS,
CHARLES F. CHOATE, JR.,
FREDERIC C. DUMAINE,
GEORGE DWIGHT PRATT,

BOARD OF DIRECTORS.

To the Directors of
The New York, New Haven and Hartford
Railroad Company

This report was undertaken by us in accordance with instructions substantially embodied in the following telegram:

NEW HAVEN DEPOT CONN 335P JUL 31 1923

WILLIAM J CUNNINGHAM

HARRIS HALL EVANSTON ILL

DIRECTORS OF NEW HAVEN RAILROAD STRONGLY DESIRE YOU IN CONJUNCTION WITH FORMER COMMISSIONER DANIELS TO EXAMINE STORROW REPORT AND OTHER RELEVANT MATERIAL AND ADVISE THEM RESPECTING EFFICIENCY OF NEW HAVEN ROADS OPERATION CAN SEND YOU ALL PRELIMINERY PAPERS YOU NEED PRESENTLY STRONGLY URGE YOU TO UNDERTAKE IT PLEASE ADVISE ME CALL ME TELEPHONE WEDNESDAY MAIN SIX ONE SIX NAUGHT

CHAS F CHOATE JR

We were furnished with a copy of the Report of the Joint New England Committee to the Governors of The New England States, dated June, 1923. We were also furnished with a complete transcript of the stenographic notes of the testimony and Exhibits of the New Haven witnesses before the Joint New England Railroad Committee, hereinafter termed the Storrow Committee. These we have carefully examined and analyzed. We were also furnished with various memoranda and charts prepared by the Operating Department of the New Haven, and addressed to a Committee of the New Haven directorate. In the course of our analysis we have asked the New Haven management for additional data and reports covering particular phases of operation dealt with in the Storrow Report, and have occasionally interviewed executive and operating officials of the New Haven. Such additional information has been readily furnished, and we have been afforded full opportunity by the New Haven management to prosecute any inquiry which we have deemed would throw additional light upon the matter of our investigation. In conference with each other, we have compared the conclusions which we had independently reached, and in collaboration we have agreed to the findings set forth below.

In a supplemental letter of instructions addressed on August 1, 1923. by Mr. Charles F. Choate, Jr., to Mr. Cunningham, it is stated that:

"The Directors are anxious that your report should be perfectly frank and unbiased, and shall give them as true a picture as you can upon the question of efficiency of operation. You need not give any attention to the Storrow Committee's financial plan or other features, but simply to that part of the Report which deals with operations of the New Haven Railroad."

Following our instructions we have confined ourselves to an inquiry into the operating efficiency of the New Haven railroad, mainly in respect of those features singled out in the Storrow Report, and have added our appraisal of the Report's findings thereon. We have appended a brief comment on certain matters relating to operating efficiency which are omitted or but cursorily alluded to in the Storrow Report.

GENERAL SUMMARY OF FINDINGS.

In general, we find that the adverse criticism of the Storrow Report directed primarily against car operation of the New Haven, fails to give proper weight to operating handicaps; that the average car miles per car day on the New Haven reflect essentially, not inefficiency of operation, but the sum total of conditions, physical, traffic, and transportation, under which the road necessarily operates; that the alleged excessive cost of slow movement of freight cars, the alleged unnecessary delays in classification yards, the imputed unnecessary loss of time in placing cars at destination, the implied excessive payments of per diem by the New Haven, the adversely criticised low net ton miles per car day—all hark back to and are necessitated by the sum total of conditions under which the New Haven inevitably works.

We also find that the adverse criticism of the New Haven embodied in the Storrow Report wherein the factors named in the preceding paragraph are compared to the disadvantage of the New Haven as contrasted with other New England carriers, notably the Boston and Albany, and the Boston and Maine, fails adequately to appraise the totality of the relative conditions under which the carriers compared respectively operate; and that due allowance for the difference in relative conditions practically explains the above comparisons which only seemingly, but not really reflect unfavorably upon the New Haven.

We find that the Storrow Report's suggestion that there is room for considerable improvement in the matter of expenditure for locomotive repairs by the New Haven as evidenced by similar expenditure by other New England carriers, is not convincing, inasmuch as the primary basis for cost comparisons, to wit, gross ton miles of actual freight engine performance, is much more favorable to the New Haven than the bases of comparison relied upon by the Storrow Report. On this basis the New Haven expense is lower than that of any other New England railroad.

We find that the adverse criticism of the Storrow Report as to the embargo policy of the New Haven is substantiated insofar as it finds that the laying of the embargo was too long deferred; that the timing of the embargo declaration was carefully weighed by the New Haven management, and that, under all the circumstances and conditions, even though it now appears to have been a mistake, the management is not censurable for having accepted the risk involved. We further find that the Storrow's Report's condemnation of the permit system during the embargo involves a nice question of operating policy which cannot be condemned outright, and that the protraction of the car congestion and the augmentation of current per diem attributed in the Storrow Report to the permit system is only in a minor degree chargeable thereto.

We find further that the evidence before the Storrow Committee would have fully justified the making of favorable findings as to the large economies in time and money derived from the installation of the classification yards at Cedar Hill and at Providence and related improvements, and that the evidence of record would amply support favorable findings with respect to economies already realized in the reduction of costs from loss and damage claims, in the striking reduction of annual casualties, and in the exceptional efficiency and economy abundantly attested in the departments of Maintenance of Way and of Materials and Supplies.

FREIGHT CAR UTILIZATION.

The greater part of the Storrow Committee's criticism of the New Haven attaches to the feature of freight car utilization. Proceding from the general premise that "the average distance moved per car day constitutes a significant test of the efficiency with which a road is operated," the Committee indicts the New Haven because its car miles per car day are relatively low. Again, in discussing net ton miles per car day the Committee says: "So far as the freight traffic of a railroad is concerned, this is all the railroad is in business for, viz., to produce the largest possible number of net ton miles per car per day." Here, also, the New Haven is relatively low. The report comments as well upon certain specific elements of freight car performance, such as delays in classification yards and in placing cars at loading and unloading points; and the New Haven is held to be inefficiently operated because its cars are held for relatively long periods. Both in its criticism of the New Haven and the Boston & Maine, as well as its commendation of the other carriers, the Committees give preponderating weight to the single factor of freight car performance.

CAR MILES PER CAR DAY.

The Committee is not on solid ground in asserting that car miles per car day constitute a significant test of operating efficiency. Operating efficiency is a factor which affects the average either favorably or unfavorably, but its bearing is relatively unimportant as compared with other factors. The highest average is found upon roads which are essentially bridge carriers, over which cars move long distances in solid trains, with but little intermediate handling or diversion to branches or connections, and upon which there is relatively little passenger service to interfere with freight trains. A good example of such a road is the Union Pacific. The average is lowest on roads which have short hauls, a high degree of traffic diffusion, frequent junction points with branch lines and connections, a heavy density of traffic at intermediate terminals and manufacturing centers, and frequent passenger train service. The New Haven and the Long Island are good examples.

A comparison of the average car miles per car day during the first five months of 1923, (Bureau of Railway Economics Bulletin) on a selected list of roads respectively typical of the two contrasted groups, indicates clearly that the traffic and operating characteristics have the predominating weight, and that the relative degree of operating efficiency cannot be inferred from the data:

AVERAGE MILES PER CAR DAY
Five Months ended May 31, 1923.

Favorable traffic and operating conditions.		Unfavorable traffic and operating conditions.	
Union Pacific	59.5	Central of New Jersey	12.6
Cincinnati Northern	51.7	Lehigh & New England	10.8
Toledo, St. Louis & Western	51.2	New Haven	9.6
Lehigh & Hudson River	49.0	Toledo, Peoria & Western	9.6
St. Joseph & Grand Island	48.2	Montour	8.7
Canadian Pacific (in Me.)	47.9	Duluth, Missabi & Northern	7.2
Florida East Coast	47.7	New Jersey & New York	7.0
Nickel Plate	44.2	Chicago, Detroit & G. T. Jct	6.8
Los Angeles & Salt Lake	43.4	Port Reading	5.8
Oregon Short Line	42.8	Duluth & Iron Range	5.6
Illinois Central	42.6	Chicago, Peoria & St. Louis	5.2
Richmond, Fred. & Potomac	41.7	N. Y. Susquehanna & West	4.8
Southern Pacific (Pac. System)	40.7	Long Island	4.4

It is interesting to note the variation in car performance on railroads under the same executive or operating management. The Oregon-Washington Railroad & Navigation Company and the Oregon Short Line and the Union Pacific are all under one executive management, yet their respective averages in car miles per car day during the first five months

of the current year were 24.8. 42.8 and 59.5. The New York, Susquehanna & Western and the New York & New Jersey are integral parts of the Erie, yet their averages were 4.8 and 7.0 respectively, compared with 30.2 on the remainder of the Erie System. The Pittsburgh & Lake Erie is a part of the New York Central System, yet its average was 16.0, compared with 27.6 on the New York Central. The Long Island and the Pennsylvania are closely affiliated in executive management, yet the Long Island's average was 4.4, compared with 22.4 on the Pennsylvania System.

These comparisons and contrasts indicate clearly that the wide differences in car performance are attributable to differences in the character of the traffic and in operating conditions and are not attributable to differences in managerial skill. Bringing the comparison into our own field, it is significant to note that in the month of May, 1923, the average of the New Haven (not including the Central New England) was 13, while on the Central New England, which is operated as an integral part of the New Haven, the average was 19.6. Or again, the average in the same month on the New York Central was 29.2, while on the Boston & Albany, which is under the same executive control, the average was 32. The average on the Grand Trunk Lines in Maine was 21.1, while on another part of the Grand Trunk System in the United States—the Grand Trunk Western—the figure was 39.8. Or, to show the effect of traffic differences in another way, it is interesting to note that the average on the Canadian Pacific Lines in Maine for the five months ended May 31 was 47.9, while for the month of May alone, when the volume of export traffic through St. John is smaller than during the winter months, the average was 16.8.

It is unnecessary to go further in demonstrating that the average car miles per car day is not a significant test in comparing the operating efficiency of the New Haven with that of the Boston & Albany, nor with that of the Boston & Maine. Such comparisons are made by the Storrow Committee, to the disadvantage of the New Haven. The traffic and operating characteristics of the New Haven are essentially dissimilar to those of the Albany and, while not so striking, there are important differences between the New Haven and the Boston & Maine. In making the comparisons, the Committee merely hints at physical dissimilarities in the matter of branch lines and junction points but gives no weight to traffic and operating differences. The comparisons, therefore, are misleading.

TRAFFIC AND OPERATING CONDITIONS OF THE NEW HAVEN.

The peculiar situation on the New Haven may be summarized as follows:

(1) It has a heavier passenger traffic than any other road comparable with it in size. Passenger train miles constitute

70% of its total train miles. The comparable percentage on the Boston & Albany is 54%; on the Boston & Maine, 60%; and for all of New England, excluding the New Haven, 55%. In addition, the New Haven has a heavier proportion of suburban passenger traffic, affecting its terminals at New York, Hartford, Providence, and Boston. The density of passenger trains interferes seriously with freight movement both on the line and at terminals. Such interference is relatively much greater than on the other New England carriers.

(2) The New Haven has a much greater diffusion of traffic than the Boston & Albany and the Boston & Maine. A study of the actual movement of all cars in one month in 1915 indicated that of the cars received eastbound at Harlem River, only 13% moved through to Boston, and that of the cars received in the same direction at Maybrook, only 6% moved through to the other end of the system. Of the total received through the two gateways, less than 30% moved on the main line into and east of Providence. On the other New England carirers the proportion of through traffic is much larger. The greater diffusion of traffic on the New Haven depresses the average car miles per car day.

(3) The proportion of overhead traffic (cars moving from the junction with one connection to the junction with another connection) is conspicuously low on the New Haven, approximately but 5%. In other words, about 95% of the total tonnage on the New Haven either originates or terminates, or both originates and terminates, on its own rails. Approximately 25% of its total tonnage is strictly local to the New Haven. Comparable figures for the Boston & Albany and the Boston & Maine are not available, but their proportion of overhead traffic is greater.

(4) The average haul per ton of freight is relatively low on the New Haven. The relation of the average haul and the line mileage of the New England railroads is shown in the following tabulation: (Year 1922).

Railroad	Road Miles	Average Haul	Ratio of Average Haul to Road Miles
New Haven	1,976	107.7	5.4%
Boston & Albany	394	115.8	29.4
Boston & Maine	2,455	126.7	5.2
Maine Central	1,195	116.6	9.8
Central Vermont	533	95.5	17.9
Rutland	413	110.0	26.6
Bangor & Aroostook	624	124.0	19.9

These figures indicate that the relation of the average haul to road miles is practically the same on the New Haven and on the Boston & Maine, but the ratio of the New Haven is much lower than that of the Boston & Albany. Each ton is moved over but 5.4 per cent. of the mileage of the New Haven, whereas on the Boston & Albany the average haul is equal to 29.4 per cent. of its entire road miles.

The fallacy of using the average car miles per car day as a measure of operating efficiency must be apparent when the Committee concludes that the Bangor & Aroostook "is operated with marked efficiency". By the car-day-miles test the Bangor & Aroostook is in the same class as the New Haven, as the following figures taken from the Committee's report, indicate. They apply to the year ended June 30, 1922.

Railroad	CAR MILES PER CAR DAY All Cars	CAR MILES PER CAR DAY Excluding Bad Orders	Net Ton Miles per Car day
New Haven	13.6	18.1	198
Boston & Albany	27.8	30.0	365
Central Vermont	19.3	29.5	268
Maine Central	17.8	21.2	264
Rutland	17.7	23.6	247
Boston & Maine	17.1	21.2	246
Bangor & Aroostook	13.8	19.3	186

It will be noted here that the Storrow Committee's "significant test of operating efficiency" indicates that in car miles per car day the Bangor & Aroostook ranks about the same as the New Haven and in net ton miles per car day it is actually lower than the New Haven. Yet the New Haven is condemned and the Bangor & Aroostook is commended. In defence of the relatively poor car performance of the Bangor & Aroostook, the Committee refers to certain traffic features (such as the seasonal movement of potatoes) which retard car movement on the Aroostook road. It is quite proper that these qualifying factors should be mentioned but it is improper to set them forth in one case as extenuating the indifferent showing of the Bangor & Aroostook, and at the same time fail to mention other factors which are more impressive in explaining the low New Haven average. The Committee in passing adverse judgment on the New Haven has ignored conditions which make for car days without making for car miles.

DELAYS IN CLASSIFICATION YARDS.

A substantial portion of the life of a freight car is necessarily spent in classification yards. The time so spent depends in large part upon the

amount of switching work to be done and the frequency of road train service. The number of classifications depend upon the nature and diffusion of the traffic and is usually limited by the yards' physical capacity. According to whether the car is to be moved a short or a long distance over the main line and whether it is routed over diverging branches, the car must be re-classified at intermediate terminals or dropped at junction points to be made up into a branch line train.

The Storrow Committee quite properly emphasizes the importance of yard operation in its effect upon car performance and attempts to measure the relative efficiency of the New England carriers by ascertaining for each the ratio of cars moved out of the yard daily to the total cars on hand to be moved. The Committee's definition of the formula—"The percentage of cars moved each day compared with the number ready and waiting to be moved"—is neither clear nor accurate. Our understanding is that the ratio is the percentage which the cars moved per day bears to the cars on hand at a certain hour of the day (usually midnight) plus the number moved that day. If all cars were moved, leaving none on hand at midnight, the ratio would be 100 per cent. It is incorrect to use the Committee's phrase "ready and waiting to be moved" since some of the cars may have come into the terminal just prior to the taking of the count and are therefore not classified and possibly in bad order, and, therefore, not ready and waiting to be moved. If the number of cars moved out of the yard during the 24 hours of the day were 1,000, and there were 333 cars on hand in the yard at midnight, the ratio of efficiency would be computed by adding the number of cars moved (1,000) to the number on hand (333) and dividing the sum (1,333) into the number moved (1,000). In this case the ratio of efficiency would be 75. The Storrow Report gives the ratios for the several New England carriers and for 51 representative carriers outside of New England for the year ending June 30, 1922. The figures are tabulated below:

Boston & Albany	80.3
Rutland	78.4
Maine Central	76.6
Central Vermont	76.1
Bangor & Aroostook	75.8
New Haven	69.2
Boston & Maine	61.5
Atlantic & St. Lawrence	58.3
51 important carriers outside of New England	74.0

The Committee used these basic data also to approximate the average delay per car in important yards. The cars on hand at midnight were divided by the cars moved during the day, and the result was multiplied by 24. Thus, if the cars on hand at midnight were 333 and the cars moved

during the day were 1,000 (as in the previous illustration) the average delay per car would be eight hours.

The formula assumes that the flow of cars into and out of the yards is uniform. If the flow is not uniform, and rarely is that the case, the average is distorted and is not comparable with other yards. Because of passenger trains and other operating reasons, the movement of cars into and out of yards is intermittent and the average obtained by this method will be influenced favorably or unfavorably by the selection of the hour for taking the count.

A study was recently made to determine the variation of the number of cars on hand at three periods of the day in three important yards on the New Haven. The results are tabulated below:

Yard	Midnight	7 A.M.	3 P.M.	Average
Harlem River	711	521	766	666
New Haven	858	848	734	813
Maybrook	341	311	238	297
Total of above	1,910	1,680	1,738	1,776

In ascertaining the ratio for Harlem River, if we assume that 1,000 cars were moved, the ratio based on the midnight count would be 58 per cent. and that based on the 7 A. M. count would be 65 per cent.

The ratio for the railroad as a whole is influenced further by the selection of yards to be included in the grand average. If only the large classification yards are taken into account the average will be higher than if account is taken of all intermediate sub-terminals where a large proportion of the trains moves through with little or no change in make-up. This qualification has an important bearing upon comparisons between roads.

The Storrow Committee derived its averages for the New England carriers by sending its experts to consult the records for the individual yards. So far as the New Haven is concerned we are informed that the railroad officers have no knowledge as to the figures that were taken from the records, nor as to what yards were included. The Committee does not state where it obtained the information for the 51 railroads outside of New England. It is almost certain, however, that it was derived from semi-weekly reports made by the carriers to the Car Service Commission of the American Railway Association. A check has been made from the records of the Car Service Commission, and it conforms closely to the results for the total of the reporting carriers outside of New England. The Storrow Committee's ratio for the New Haven, however, does not agree with that derived

from the figures reported by that road to the Car Service Commission. The New Haven officials cannot explain the discrepancy unless it is attributable to the failure of the Storrow Committee's experts to include all of the yards embraced in the New Haven's report to the Car Service Commission. Unfortunately, the Storrow Committee's ratio for the New Haven (69.2%) is substantially less than that derived from the complete report to the Car Service Commission (73.3%). The Storrow Committee's criticism of the New Haven, therefore, must be qualified by the fact that it used one basis for computing the average for other roads and used another and less favorable basis for computing the average for the New Haven.

It should be noted that the Commission on Car Service has never issued standardized instructions as to how the information called for should be compiled. As a result there is considerable variation as between carriers in such matters as the hour of the daily count and the inclusion of intermediate yards. Under the circumstances, then, it is not proper to use the non-standardized results for comparisons between carriers.

A single example will show the fallacy of such comparisons. The Storrow Committee has contrasted the average of the New Haven with that of the Boston & Albany, yet the latter does not include the important classification yard at West Albany because it is operated by the New York Central as a joint terminal. The delay to Boston & Albany cars at West Albany is greater than at its intermediate terminals, and its exclusion favors the general average. On the other hand, two intermediate yards (Rensselaer and North Adams Junction) are included although they are not classification yards and although a very large proportion of cars move through in solid trains on the main line. The inclusion of the two yards has a further favorable influence upon the Albany's average. It requires no further discussion to demonstrate the impropriety of criticising the New Haven because it has not attained as favorable a ratio as that of the Boston & Albany, but it may be noted further that at West Springfield, the principal intermediate classification yard of the Boston & Albany, a substantial part of the cars move through with but little switching. There is relatively much less diffusion of traffic from West Springfield than from Cedar Hill, the corresponding intermediate terminal on the New Haven.

As already stated, the Storrow Committee finds that the average ratio for the 51 carriers outside of New England was 74 per cent. for the year ended June 30, 1922. If instead of basing the New Haven's ratio on selected yards it had used the same basis employed for the

51 outside carriers, it would have been 73.3 per cent. instead of 69.2 per cent. Taking the first figure as that which is more nearly comparable with the grand average for the 51 roads (although we repeat that because of unstandardized practices the data are not fairly comparable) the New Haven is but 7/10ths of 1 per cent. less than the average of the 51 carriers. Taking into account the short haul, the traffic diffusion and the terminal and branch line density of the New Haven, this should be regarded as a fairly creditable showing.

We have been furnished by Mr. Slater, Assistant to General Manager Bardo, with individual ratios for some of the 51 representative carriers. It is interesting to note the wide range of variation among six representative roads with averages less than that of the New Haven. These figures are for the six months ended June 30, 1922:

New Haven	72.7%
Entire Eastern District	71.9
Pennsylvania	71.9
Santa Fe	69.0
Chicago & North Western	67.7
Chesapeake & Ohio	67.1
New York Central	60.3
Central of New Jersey	48.4

The unreliability of this ratio as an index to relative operating efficiency is evident when we compare the New York Central with the Boston & Albany, both under the same executive management. The Central's ratio in the six months' period was 60.3 per cent. while that of the Albany for the entire year was 80.3 per cent.

The Storrow Committee lays great stress upon the average detention at Maybrook, Harlem River, Cedar Hill, and Providence (eastbound), and severely criticises the operation of the New Haven because the figures derived by the use of the formula (defective as it is shown to be) indicate that the delay in these yards is very much greater than the average detention at West Springfield on the Boston & Albany. The Committee in ignoring the fundamentally important differences, already alluded to elsewhere, between the New Haven Yards and West Springfield, has made a comparison unfair to the New Haven.

The Committee fails also to mention the low detention on cars moved westbound through Providence. The record shows clearly that the Committee, by the use of its formula, ascertained that the average delay at Providence on westbound cars was but 3 hours; yet, without mentioning the figure in their report, they dispose of the favorable westbound record at that point by the incorrect state-

ment "At Providence only a small number of cars moving west are classified and therefore we exclude these from consideration."

The record fails to support the statement that "only a small number of cars moving west are classified at Providence." The facts are that the number of cars classified westbound is almost equal to the number classified eastbound, although the number of classifications is smaller westbound. The totality of the conditions at Providence is such as to demonstrate the fallacies in the Committee's formula, and but for the exclusion of the westbound average, the fallability of the Committee's general criticism of the eastbound operation at Providence would have been manifest, no less than its criticism of the performance at Maybrook and Cedar Hill.

The reasons for the difference between the average delay of 15 hours eastbound and 3 hours westbound at Providence are clearly set forth on the record and must have been known to the Committee and its experts who visited the yards to observe operations on the ground. Among the eastbound cars on hand at Providence at midnight is a preponderating number which remain in the yard until they are taken out the following morning by the various local freight trains and traveling switchers which distribute the cars over the numerous radiating branch lines and to local stations on the main line. In many of these cases the service is limited to one movement per day. Eastbound cars arriving in Providence after the departure of such trains necessarily remain in the yard until the next day. The situation at midnight, therefore, reflects a peak in cars awaiting movement. An average based on a count at 7 A. M. would be substantially lower. In the case of the westbound movement, the midnight count is unduly favorable and unrepresentative since the greater proportion of the cars moved westbound into the yard during the day by the locals and traveling switchers are dispatched westbound in trains which leave Providence between 6 P. M. and midnight. We are informed that, under normal conditions, there is one eastbound train from Providence between these hours as against six westbound trains.

Here is a case, then, wherein the same local operating organization made a record of 3 hours detention in one direction and 15 hours in the opposite direction. The difference in performance may not properly be attributed to high efficiency in management westbound or low efficiency eastbound. It is accounted for by variations in the nature of the service and its synchronism with road movement. This case illustrates further the fallacy in comparing Maybrook and Cedar Hill with West Springfield where the nature of the traffic and the operating conditions are so essentially dissimilar.

On page 28 of the report the Committee states that it is "informed that 9 hours in these yards (Maybrook, New Haven and Providence) is all that should be required for the average car under reasonable operating efficiency." The source of their information is not given but we may assume that it is based upon the average yard delay (derived by the use of their defective formula) of the 51 representative carriers outside of New England. That general average is given as 8.43 hours. It is hardly necessary to comment at length upon the impropriety of using a mass average of all roads as the "bogey" or "par" for a single road, or the greater impropriety of setting up that figure as an attainable maximum for individual yards wherein the traffic and operating conditions are unfavorable.

TIME LOST IN PLACING CARS.

In the item of elapsed time between the arrival of the car in a terminal and its actual placing for loading or unloading the Storrow Report, by implication, charges the New Haven with inefficiency and with "spilling time and therefore net money all along the right of way." (Page 31.) The basis for the implied charge is found in the statistics published by the New England Demurrage Bureau. They show the following comparison for the years 1921 and 1922: (Page 32.)

AVERAGE TIME IN PLACING CARS.

Railroad	1921 H.	1921 Min.	1922 H.	1922 Min.
New Haven	6	43	7	55
Bangor & Aroostook	2	53	2	38
Boston & Albany	4	19	4	19
Maine Central	4	19	4	05
Rutland	6	58	5	46
Central Vermont	7	41	7	12
Boston & Maine	7	55	7	55

The Committee makes no specific comment concerning the tabulated figures but the implication is that because the Bangor & Aroostook in 1921 "spilled" but 2 hours and 53 minutes of time and net money per car placed, it is more than twice as efficient in this respect as the New Haven which "spilled" 6 hours and 43 minutes. In fairness to the New Haven the Committee should have noted the fact that the average detention in placing cars will vary with the proportion of cars placed by local freight trains or road switchers. In the case of cars so placed there is practically no elapsed time between the arrival and placement, but in the case of cars placed by yard switchers,

the placement time includes every minute from the arrival of the car in the yard until it is classified, picked up by the yard locomotive, and switched to the bulk track, freight house, or industrial track.

The New Haven does relatively less placing of cars by locals and road switchers than do the other New England carriers. Its proportion of cars placed by yard locomotives is relatively high. Exact figures as to the relative number of cars placed by each of the two methods are not obtainable but an indication of their relation is available in the statistics of road switching miles (hours spent by road locomotives in train switching multiplied by 6) and yard switching miles (hours of yard switching locomotives multiplied by 6). The relation between the two classes of switching is shown in the following figures furnished us by Mr. Slater, assistant to General Manager Bardo:

PERCENTAGE OF ROAD SWITCHING LOCOMOTIVE MILES TO YARD SWITCHING LOCOMOTIVE MILES

Year 1921:

Bangor & Aroostook	136.53%
Central Vermont	48.22
Maine Central	41.01
Rutland	31.33
Boston & Albany	29.07
Boston & Maine	18.00
New Haven	17.83

The impropriety of the implied criticism of the New Haven is apparent when it is noted that on the New Haven there were but 17.83 road switching miles for every 100 yard switching miles, while on the Bangor & Aroostook, which shows the lowest detention in car placement, the ratio was 136 to 100. It is something more than a coincidence that the relative standing of the seven roads in car placement detention is almost exactly the reverse of their standing in the table which shows the ratio of road switching to yard switching.

RELATION OF YARD DETENTION TO TOTAL TRANSPORTATION COSTS.

In selecting the single element of yard operation as the significant test of operating efficiency, the Storrow Committee overlooks the relation between (1) freight car expenses (including per diem charges) attributable to yard operation and (2) other expenses. Transportation expenses consist of three major groups—stations, yards, and trains. The two last named—yards and trains—are closely related and should

be considered together. Of the two, the train expenses are the greater. In 1920, for Class 1 roads as a whole, yard expenses made up 8.7 per cent. of all operating expenses. The corresponding figure for train expenses was 24.6 per cent.

If undue emphasis is placed upon the reduction of yard delays and yard costs, the result will be that heavier burdens will be placed upon train expenses in additional train miles and greater delays by reason of more road switching hours. The net result may be higher unit costs in the two services combined. On the other hand, a sacrifice in yard costs by more comprehensive classifications and by holding cars for solid through trains may yield net economies by greater savings in train miles and train hours. The nice balance which will bring the maximum efficiency from the viewpoint of the service as a whole is not always easy to determine and it changes with variations in operating and traffic conditions. It requires the exercise of the trained judgment of the transportation expert on the ground and familiar with local conditions. The Committee itself recognizes the principle in a parenthetical remark on page 41: "Good business judgment must of course be exercised to keep the right balance between the cost of per diems and the cost of train service." All of the Committee's emphasis, however, is placed upon yard delays and per diem charges. Nowhere in the Storrow Report is found any reference to train service costs. We will refer to these in a later section of our report and will call attention to favorable factors in the New Haven's operation which were pointed out to but are not mentioned by the Storrow Committee.

PER DIEM PAYMENTS.

The Storrow Report criticises the New Haven because of the large—and impliedly unnecessary—amount paid to other lines for car hire of foreign cars on the New Haven's rails. But this car hire, or per diem, is simply the outcome of the daily average car movement. If the average car mileage per day is not excessive—and the weakness of the Report's grounds for holding it excessive has already been indicated—the necessary consequence of the average daily movement, as registered in per diem, has not been shown to be excessive. It is a curious example of the fallacy of "double counting," first to estimate the cost of slow movement of freight cars, and thereafter separately to compute the cost of per diem which results from the same alleged slow movement.

In particular, to suggest that the estimated daily per diem incurred at Cedar Hill of $1,200 is a continuous, and impliedly, an un-

necessary or an excessive accretion of cost, is to overlook two valid counter considerations. The first is that the $1,200 of estimated costs at Cedar Hill results in the avoidance of far greater costs than would otherwise be incurred at numerous individual destinations, where, without the prior classification at Cedar Hill,. a greater loss in time and money would be necessitated. The second consideration is that the mere avoidance of per diem expense may readily be purchased at too high a price, if, as the Report elsewhere admits, the proper balance between per diem and alternative expense is not maintained. It would be a sorry economy to rush forward short trains of foreign cars for delivery and return to connections, if longer and heavier trains containing such foreign cars could, somewhat less frequently, be run at a lower total expense.

The record shows that the average detention of foreign cars under per diem on the New Haven for the months of June, 1921 and 1922, was 5.51 and 6.31 days respectively. That efficiency as reflected in the average car movement per day is wholly unrelated to the relative number of foreign cars on the New Haven line is readily seen by an analysis of the statistics of car movement.

EMBARGOES AND THE EMBARGO POLICY OF THE NEW HAVEN.

The period of embargo here under consideration lasted from October 31, 1922, to May 16, 1923. The conclusions of the Storrow Report are: (1) that the laying of the embargo was too long deferred; (2) that after the embargo had been declared, its effectiveness was impaired by an excessive number of cars taken on line under special permission and contrary to the restrictive tenor of the embargo. The first criticism is directed against the New Haven for permitting a car congestion which impeded the general fluidity of freight movement. The second criticism is leveled at the New Haven for its failure to take more radical measures for the prompt clearance of the freight car overload upon its rails.

That the laying of the embargo was too long deferred is sustained by the record. The fact is expressly conceded in the testimony of Mr. Halliday, Superintendent of Transportation.

It may fairly be said in mitigation of this mistake that only the actual outcome could determine the policy or impolicy of deferring the embargo until October 31, 1922. A premature laying of the embargo would have resulted in an unnecessary sacrifice of revenue. Nor can it be said that there was any careless disregard by the New Haven of symptoms of impending car congestion. So long as daily

car movement is fluid, and so long as cars daily in place for unloading and cars daily unloaded indicate prompt release of equipment, the total number of cars on line, even in excess of normal, is not an invariable forerunner of congestion. Neither is an unusual number of cars standing at the gateways always an inevitable antecedent of congestion, though it strongly suggests caution. The record abundantly shows that the augmentation of total cars on line during October, 1922, was repeatedly discussed by the president with his chief operating and other executive officers. Even during the preceding month, when certain western connections issued embargoes, the New Haven management repeatedly discussed the possible necessity of similar action on their part. While the evidence goes to show that from 42,000 to 45,000 serviceable cars on line represent the normal maximum consistent with efficient operation, there had previously been on line cars in excess of these maxima without congestion ensuing. Thus, in October, 1920, the cars on line ran up to 52,000 with bad orders amounting to 5,000 approximately, but no embargo was found necessary and no congestion developed.

It also appears of record that to inquiries made by the New Haven of its western connections, advices were returned that cars en route would decline or were declining in number.

The risk therefore attendant upon a delay to embargo until October 31, 1922, was a risk, not improvidently or blindly run, but was carefully and deliberately weighed and accepted. That it turned out disastrously does not, in our judgment, argue that the management was censurable under the circumstances for assuming the risk.

The above conclusion finds additional support when account is taken of the fact that during November, 1922, the first month of the embargo, the New Haven disburdened itself of a great part of its overload of cars. During this month the total cars on line fell from approximately 57,200 cars to approximately 52,000, or by over 5,200 cars. A special analysis made at our request by the operating offices of the New Haven shows that this decrease was due to a lessened intake of cars and an augmented number forwarded, including empty cars returned. Had this result been paralleled in December, the New Haven would have been within easy reach of a normal maximum of total cars on line.

Unfortunately, the second month of the embargo showed a reversal of form, the total cars on line at the end of December being approximately 2,000 in excess of the total at the end of November. The same retrograde movement persisted until after the middle of March, 1923, the total number on line in the middle of March being,

roughly, 62,000, of which over 9,000 were bad order cars on sidetracks.

The augmentation of total cars on line in December and following months is attributable to the following causes: first, the impaired condition of power both in yards and on line, a number of freight engines having been transferred to passenger service; second, the decline in cars daily unloaded, thus diminishing the number available for forwarding. In December the total cars daily unloaded as well as the percentage of cars unloaded to cars in place for unloading, fell off. For the last ten days of December, the average cars unloaded daily were almost 1,000 under the first ten days of November; third, weather conditions after December were adverse, putting another extra burden on available power; fourth, motor truck traffic abandoned the highways and was thrown again upon the rails. However, the number of cars received under permits in December was less than in November, so that relatively the permits contributed in lesser degree than at the outset to the augmentation of cars on line in December.

The Storrow Report refers to the permit system as "an even more regrettable mistake" than the delay in laying the embargo; and says that * * * "in spite of this declared embargo, permits began to be issued at such a rate that the road instead of being cleared of the excessive number of cars, became worse and worse congested. * * *"

The special report made at our request by the New Haven in the matter of permits, indicates that the approximate daily average number of cars accorded permits was 250 in November, 1922; 187 in December, 1922; from January 1, 1923 to the middle of March, 1923, was 277; and from the middle of March until May 16, when the embargo was lifted, was 362. Permits, therefore, were granted with increasing freedom when cars on line were decreasing rather than when cars on line were increasing.

Properly to appraise the system of permits, it should be made clear exactly what per cent. of interchange traffic the embargo by its terms affected. It did not apply to anthracite coal, of which the New Haven between January 1, 1923, until February 10, 1923, handled 5,500 more cars than for the same period in the previous year. Nor did the embargo apply to perishables, nor to foods or foodstuffs, nor to other specified varieties of traffic. At the time the embargo was laid approximately 2,400 to 2,500 loaded cars daily were coming forward from connections afterwards embargoed. The cars not affected by the embargo are said to have amounted to about 1,500 cars a day. Thus by its terms the embargo applied to less than one-half of the traffic through the embargoed gateways. Instead of cutting off 2,500 cars a day, its effect, if literally enforced, would be to cut off about 1,000 cars daily. This number was lessened by the cars received

under permits. It was testified that the embargo as modified by the permits, held back 500 or 600 cars a day. From the subsequent study of the matter of permits it appears that for the entire period of the embargo, the daily average number of cars accorded permits was 288.

The Storrow Report fails to distinguish between the larger number of cars taken on line by reason of exceptions to the embargo—upon which the Report makes no unfavorable comment—and the much smaller number of cars concurrently taken on line under permits. It is manifest that the slackened rate of car miles per car day, cited on pp. 36, 37 of the Storrow Report, and apparently attributed to cars received under permit cannot be ascribed as wholly or mainly due to the permit system. Clearly, only a minor part of the ensuing slowing down of car movement is chargeable to the "permitted" cars.

In just what minor degree this daily number of cars received under permit contributed to the retardation it is difficult, and probably impossible, to estimate with any approach to accuracy. Weather conditions, the power situation, the slackened rate of unloading and other circumstances all contributed to the result.

As to the policy of issuing permits, the question is again very close. On the one hand was the threatened shut-down of numerous industries on the New Haven: on the other, an unknown accentuation of retarded car movement and an unpredictable delay that must ensue before the car accumulation could be worked off. It appears of record that many requests for permits were made where no real exigency on the shippers' part existed.

The permit system inevitably involves discrimination. Indeed the embargo itself with its exemption of specified varieties of traffic is necessarily discriminatory. We are, however, of opinion that the record supports the view that the management tried in good faith to avoid discrimination that was undue, as between shippers, although it is strongly hinted that in some instances the management was misled.

Whether, under all the circumstances, the permit system was the "shortest way through", or whether rigorous conformity to the terms of the embargo would have resulted in lessening the hardships that New England industries faced by reason of their distance from raw materials at a time of impaired transportation service, is so close a question that we do not feel disposed to venture a confident verdict thereon. We do not however subscribe to the wholesale condemnation of the permit system voiced in the Storrow Report. Moreover, we are confident that the illustrations there cited of retarded car movement per day and the growth of adverse per diem charges are only in attenuated degree to be ascribed to the permit system.

LOCOMOTIVE REPAIR COSTS.

The Committee finds that the comparison of locomotive repair costs on the New Haven with similar costs elsewhere in New England indicates "room for considerable improvement on the New Haven in reducing the cost of locomotive repairs."

In arriving at that conclusion the Committee was guided by a tabulation of repair costs on three bases, viz:

(a) Per locomotive mile
(b) Per locomotive year
(c) Per 50,000 lbs. tractive power

For the year 1921 the comparative figures were: (p. 44)

COST OF LOCOMOTIVE REPAIRS PER

Railroad	Locomotive Mile	Locomotive Year	50,000 lbs. of Tractive Power
New Haven (electric)	$.24371	$12,412	$16,324
New Haven (steam)	.35035	6,350	10,209
Boston & Maine	.30674	6,300	11,366
Maine Central	.21956	5,269	8,458
Boston & Albany	.23520	6,672	9,206
Bangor & Aroostook	.24236	4,750	9,250
Central Vermont	.26471	6,806	12,397
Rutland	.18191	4,432	6,914

The report of the Committee contains no reference to the cost of locomotive repairs on the basis of work done, viz., the cost per 1000 gross ton miles in freight service and the cost per passenger train car mile in passenger service. These two units are recognized universally as the best measures of maintenance costs. The figures are reported monthly and annually to the Interstate Commerce Commission, and the totals by regions are published by the Commission. The Storrow Committee's experts were in possession of the detailed information.

The Committee's statistics and unit costs lump together the costs for all locomotives—freight, passenger, switch, and work—although from available data it is possible to give separate consideration to each of the two major services—freight and passenger. Such separate treatment would have eliminated the need of substantial qualifications to the comparative value of the figures by reason of varying proportions of freight, passenger, switch, and work to total.

In its criticism of New Haven costs the Committee confines its specific comments entirely to the single item—cost per locomotive mile. It draws attention to the fact that on that basis the New Haven costs in steam service are higher than on any other New England carrier and comments also on the cost per locomotive year in which the New Haven is lower than the Boston & Albany yet slightly higher than the Boston & Maine.

The Report mentions also that on a tractive power basis the New Haven is below the Boston & Maine yet considerably higher than the Maine Central and the Boston & Albany.

In fairness to the New Haven, reference should have been made also to the fact that the relatively high cost per locomotive mile is attributable in part to the New Haven's relatively low average miles per locomotive year (the lowest in the New England list). That low average is the reflex of its dense suburban traffic and its large number of branch lines on which the locomotives can not be utilized so as to obtain the normal mileage per day.

We have already referred to the principal omission, viz., the Committee's failure to mention locomotive costs per gross ton mile and per passenger car mile. It so happens that in freight service the New Haven, during the year under review (1921) made by far the best showing in New England, although in passenger service its cost per car mile was relatively high. The comparative figures for 1921 are given in the following tabulation:

Railroad	FREIGHT Cost per 1000 Gross Ton Miles	PASSENGER Cost per Car Car Mile
New Haven	34.66c.	6.05c.
Boston & Maine	47.88	4.68
Central Vermont	47.82	5.88
Bangor & Aroostook	47.75	4.26
Maine Central	42.16	3.48
Boston & Albany	40.11	4.16
Rutland	39.07	2.51

A relatively high cost of locomotive repairs per car mile in passenger service is to be expected on the New Haven because of its dense suburban traffic and light trains on branch lines where the car miles per locomotive mile are low.

The Committee, limiting its criticism of the New Haven to the average cost of repairs per locomotive mile, offers the suggestion that if the New Haven could have reduced the cost of locomotive repairs per locomotive mile to the 1921 average of the Boston & Maine, it could have saved $1,126,889. With equal fairness it might have computed how much would have been saved by the Boston & Maine or the Bangor & Aroostook, or in fact any of the New England roads, if in 1921 each could have reduced its locomotive repair costs **per gross ton mile** to the relatively low figure of the New Haven.

We do not wish to be understood as stating that the locomotive repair costs on the three bases used by the Committee are not without significance. We do assert, however, that the Committee erred in failing to show also the

commonly used and officially recognized units of cost per gross ton mile in freight service and per car mile in passenger service. Had they been included in the tabulation the Committee would have been without ground for implying that the New Haven costs in freight service are unreasonably high, as they are, in fact, lower than on any other New England railroad. In passenger service they are relatively high, but the Committee in that connection might have made note of the important factor of suburban and branch line runs.

ECONOMIES NOT MENTIONED IN STORROW REPORT.

In the preceding sections of this report we have dealt with the adverse criticisms of the Storrow Report upon the operating efficiency of the New Haven. We are of opinion however, that the evidence before the Storrow Committee fully warranted and, indeed, required certain additional findings in order adequately to reflect the entire operating situation. We refer to the effectuation of large economies in time and money which the Storrow Report passes by without appropriate characterization.

In particular, the classification yards installed at Cedar Hill and at Northrup Avenue, Providence, together with associated improvements, have reduced the total time required per unit of transportation work performed on the System, as compared with the last six months' average of 1916, to a very marked degree. In a word, 78 men now perform the work then employing 100 men. The improvement is shown per unit of traffic with substantial uniformity in the total employee hours, the total transportation employee hours, the passenger train miles, the freight train miles and the switching miles. Had the general rates of pay not increased by substantially 100 per cent. since 1916, the money saving on total pay roll would have been heavy. The same marked trend in economy of operation is shown in the increase of gross tons per train mile, in the speed of freight trains, and in the decrease of the attendant cost in equated wages. The improvement in the lessened amount of switching required has also been marked. At various yards on line the crews have been sharply reduced in number. With appropriate adjustments for the change in wage levels since 1917, the average cost of handling a car at Harlem River, Maybrook, New Haven and Midway is given as follows:

	1917	1922
At Harlem River.....	$1.34	$0.84
" Maybrook.....	0.89	0.78
" New Haven.....	2.02	1.10
" Midway.....	.48	.40

The average car miles per day has been increased, if allowance is made for the excessive number of bad order cars and only serviceable cars are counted. The period 1915-1919 shows an average (strictly an average of averages) of 15.3 miles as against an average of 18.7 miles for the twelve months ending June 30, 1922, making the same allowance in both periods for the estimate of serviceable cars as against the total cars on line.

This increase when translated into the lesser number of cars required to carry the traffic of the road means a reduction of over 7,000 cars a day. This, in turn, carries the promise of a substantial reduction in per diem charges. The program of improvements upon the New Haven has resulted in putting into the system the requisite internal capacity, a fact which is virtually recognized in the Storrow Report under the paragraphs entitled **Density** and **Physical Condition.**

The record contains unmistakable evidence of other impressive economies which have been realized by the New Haven. In 1922, for instance, the loss and damage claims paid were 1.8 per cent. of gross revenues, as against 3.5 per cent. in 1921. ' Similar substantial economies have been realized in maintenance of ways and structures, effected through increased efficiency and reduction of forces. Thus the cost of laying rail per ton has fallen from $9.05 to $4.63. The Storrow Report recognized that the department of Materials and Supplies appears to be well organized and well conducted. It might with justice be added that the cost in purchases of materials and supplies for 1922 ran 33.7 per cent. and 40.3 per cent. under the costs for 1921 and 1920 respectively.

An appropriate word of commendation would not have been misplaced on the steady and substantial annual decline since 1916 in the percentage of expense for personal injuries to gross earnings. Similarly, the safety program of the New Haven is shown to have resulted in a notable decline in fatalities, both as to casualties on line and as regards its own employees.

WINTHROP M. DANIELS.
WM. J. CUNNINGHAM.

New Haven, Conn.,
September 28, 1923.

Cambridge, Massachusetts,
September 29, 1923.

DEAR MR. CHOATE:

Attached you will find a statement which is supplemental to that portion of the report of Professors Cunningham and Daniels to the Board of Directors of the New Haven Railroad which appears under the caption Embargoes and the Embargo Policy of the New Haven.

This is submitted in response to a request received through Professor Cunningham that I should collaborate with them in connection with the question of embargoes as it appears in the Storrow Report.

Very truly yours,
W. C. KENDALL.

Mr. C. F. Choate, Jr.,
30 State Street,
Boston, Mass.

Cambridge, Mass.,
September 29, 1923.

To the
BOARD OF DIRECTORS,
NEW YORK, NEW HAVEN & HARTFORD R. R.

While agreeing generally with statements made in the report regarding Embargoes and Embargo Policy of the New Haven, I believe increased emphasis may properly be placed with respect to certain factors. This belief is based on contacts had continuously with the country wide embargo situation during 1922-23, and with the New Haven railroad condition in particular through frequent trips from Washington to New Haven and conferences with the road's operating officers during the period restrictions were in effect.

1. Endorsing heartily what is said in mitigation of the mistake of deferring the general embargo until October 31, 1922, I go further in believing the operating officers acted with the best practical judgment based on the facts at that time possible to obtain, to wit:

(a) The western connections for some weeks had outstanding embargoes in effect, which justified belief in increasingly decreased offerings.

(b) Ability, based on previous record, of handling currently 42,000 to 45,000 cars on line in active service (Deducting 10,000 of the cars then on line awaiting repairs).

(c) Advice of connections of decreasing volume of traffic in transit. The failure to take action more promptly, in my opinion,

finds its justification in all the basic data available. The subsequent reductions of approximately 5,000 cars on line indicates that the date the embargo was initiated had no effect upon the situation in the succeeding winter months. It is not to be overlooked that similar experiences over a period of years was ever in the minds of those responsible for results.

2. While agreeing that deterioration of power condition due to the strike of shop crafts should be given first place as cause of increasing number of cars on line dating from mid-December, I believe the weather conditions should be increasingly stressed and, indeed, the cause of decline in cars daily unloaded assigned to that rather than to give weather conditions third place among the causes of these difficulties. Clearly the continued and unprecedented snows following January 1, 1923, with the snow fall largely remaining to increasingly block railroad tracks, driveways, delivery facilities, streets, and highways was responsible in large measure for the inability (1) of consignees to more promptly release cars placed and (2) the inability of the railroad to refill the tracks with cars for unloading.

The volume of traffic previously handled by motor truck forced to the railroads absorbed local facilities and proportionately retarded ability to handle traffic from connections.

3. Permits. In appraising the influence which the relatively small number of cars permitted had upon the operation of the railroad, consideration must be given to the obligation of the railroad to serve its public. New England is not self-contained. What is practical in one section of the country may apply not at all in others, if transportation service actually required is to be given. The question must be judged on a basis of what is best for the entire community. Criticism of the number of permits issued during the period up to mid-December is presumably not intended for the cars on line were not at that time out of hand. The question, therefore, is, were permits unnecessarily or unwarrantedly issued subsequent to that time? There had been a 5 months strike of coal miners during and following which period industries were unable to augment their stock piles as is customary. Those dependent upon transportation by rail required fuel to maintain their operation, and bituminous coal, under embargo for a greater part of the winter, was accepted subject to permit. Similarly, fuel oils and petroleum products in tank cars were subject to permits. Local lumber yards throughout the territory served were depleted of stocks having been under embargo for many weeks and necessary building and repair work was only possible of continuance through the permitting of this traffic. Labor was thus kept in employ-

ment, industries were continued in operation with but trifling interference, and possible suffering mitigated. Accurate count was not kept during January and February separating the cars permitted by commodities, but an examination of the available data indicates predominance of coal, oil, lumber, and certain raw materials essential for the continued operation of industries.

It is well, too, to emphasize at this point that there appears in the Storrow report a significant absence of reference to complaint from consignees generally or specifically as to their inability to obtain their actual requirements. The permit, in spite of its acknowledged defects, is the most effective and satisfactory means yet devised to care for necessary emergencies. Its condemnation should properly carry a suggestion which is satisfactory and workable as a substitute.

4. I would go further than the report which this supplements and state without reservation that New England industries as a whole were undoubtedly better and more regularly served by the instrumentalities of the permit system than would have been practical under conditions which existed had an open and shut embargo policy, with its attendant waves of traffic movement, prevailed. It must be borne in mind that to maintain a non-producing section certain essential commodities can not under any circumstances be embargoed from connections for a prolonged period. These essentials were continuously carried in New Haven embargo as exceptions, and properly so.

Viewing the embargo policies and practices of railroads throughout the country it is unfair to condemn the New Haven for its handling of this feature of its operation through the critical portion of the period under review. There is no other section of the country similarly situated. There is no other section of the country which experiences the same combination of freight and passenger traffic density and possible winter weather interference.

5. The embargo policy of railroads is generally uniform. With one or two exceptions, variation is found only in minor details. The New Haven is in no way out of line except in what may appear to have been an excessive number of cars "permitted" during a critical period. This varied however from day to day and with changing conditions, and as previously shown, the issue closely approached the irreducible minimum consistent with the obligations of the railroad to the public it serves.

What is of greater importance in matter of policy is a changing attitude toward increasing the use of the embargo as a means of control for the prevention of congestions that the greatest good may result to the greatest number.

6. If railroads generally would be more prompt to embargo the individual or industry delinquent in promptly releasing equipment many "line" embargoes would possibly be unnecessary and a greater portion of the public would thus be unhampered in their transportation requirements. This practice or policy should, because of traffic density, receive the attention of the New Haven railroad officers at all times and particularly as the season of peak traffic approaches.

Respectfully submitted,

W. C. KENDALL.

MSH 23105

END OF TITLE